

## THE SHIPBUILDERS OF THOMASTON -- V

## WASHBURN BROTHERS

The Washburn line in Thomaston begins with Kimball Washburn, whose son, George K. Washburn, married Abigail K. Dunn. Abigail must have been of the sailmaking Dunns who later founded Dunn & Elliot; at any rate George K. Washburn was a sailmaker, carrying on a business established in 1836. He also owned small shares -- a 16th or 32d -- in many of the vessels he made sails for. In 1883 the sail loft was taken over by his third son, Charles H. Washburn, who was born about 1848.

Meanwhile the retirement of Samuel Watts left an idle shipyard in Thomaston, and accordingly in 1836 the firm of Washburn Brothers & Co. was established. The partners were Frank A., Charles H., Edwin P., and William C. Washburn and James Overlock, a lumber dealer. As was almost invariably the case in the smaller Maine shipbuilding centers, a general store, where the ship carpenters could get credit, was operated in connection with the shipyard. In fact, it appears likely that a great deal of the capital required to finance the building of Maine ships, from keel-laying to launching, was unknowingly supplied by the wholesalers of New England. The shipyard workers, though generally paid in cash, spent most of their wages at the company store, and the line of credit extended by the wholesalers to the store helped carry the vessel until she was completed and the part owners paid in their full shares.

Nowell E. Vinal was master builder for the Washburn firm when it commenced operations in the former Watts yard, and the first hull, the schooner MATTIE E. EATON, was completed early in 1887. The firm owned 1/32 of her, as did Vinal; C.H. and E.P. Washburn individually each owned 7/64, and the rest was widely distributed. The following is a list of schooners built by Washburn Brothers, with gross tonnages:

1887 3m.Sch MATTIE E. EATON	620
1888 4m.Sch JOHN K. SOUTHER	993
1889 4m.Sch MABEL JORDAN	993
1890 4m.Sch CHARLES L. DAVENPORT	1032
1890 4m.Sch HENRY J. SMITH	1108
1890 3m.Sch CARRIE T. BALANO	630
1891 3m.Sch MARTHA T. THOMAS	789
1893 3m.Sch CORA H. HANSON	525
1895 4m.Sch HENRY LIPPIE	895

1896 4m.Sch R. W. HOPKINS	935
1898 4m.Sch JOHN C. HAYNES	1346
1899 4m.Sch MARY T. QUINBY	1172
1900 4m.Sch JOHN E. DEVLIN	1107
1900 3m.Sch MARY E. LERMOND	314
1900 4m.Sch JOSEPH B. THOMAS	1564
1901 5m.Sch JAMES PIERCE	1664
1901 4m.Sch JOSEPH G. RAY	1253
1902 4m.Sch HARRY T. HAYWARD	1203
1903 5m.Sch WASHINGTON B. THOMAS	2638
1903 4m.Sch HELEN THOMAS	1470
1904 4m.Sch MARGARET THOMAS	1427
1904 3m.Sch MARY BRADFORD PIERCE	410
1905 3m.Sch STILLMAN F. KELLEY	685

The JAMES PIERCE and WASHINGTON B. THOMAS were the first five-masters built at Thomaston, and the only other one ever produced there was Dunn & Elliot's EDNA HOYT in 1920.

After a few years of operations at Thomaston, with their fleet well on the way to becoming one of the largest coasting schooner fleets on the Atlantic, the Washburns also acquired the old marine railway at Herring Gut, down the river from Thomaston. This town, which was rechristened Port Clyde by the post office authorities, is more accessible from the sea than Thomaston and hence more suitable for conducting a ship repair business. New construction was undertaken here from time to time also, and the following small schooners are listed as built by the Washburn Marine Railway Co., or (after 1892) by the Port Clyde Marine Railway Co.

1890 2m.Sch. FRED B. BALANO	263
1892 3m.Sch JAMES A. SIMPSON	250
1893 3m.Sch EUGENE HALL	319
1894 3m.Sch J. W. BALANO	537

The SIMPSON and HALL were managed by James A. Simpson of Westfield, New York,

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and the other two were run by the Washburns, along with all the schooners they built at Thomaston. In 1892 Overlock dropped out of the partnership, and the firm was reorganized as Washburn Brothers.

Along with the vessels built for their own account, Washburn Brothers also ran a couple of second-hand schooners, notably the 296-ton two-master GEORGE H. MILLS, built at Port Jefferson, N.Y., in 1867, and the 306-ton three-master J.S. LAMPREY, Salem, 1872. In 1904, at the time their 25th vessel (probably MARGARET THOMAS) was being built, it was stated that the firm had produced 11 from the same model, and that the recent four-masters were costing \$70,000.

Washburn Brothers suffered a fairly high loss rate -- three schooners, JOHN HAYNES, MARY LERMOND, and WASHINGTON THOMAS, were lost when brand-new -- and in 1907 their fleet had dwindled to only 13 vessels including J.S. LAMPREY and GEORGE MILLS. Several more losses and sales occurred in the next few years, and by 1911 the last survivors of the fleet were sold outright to Crowell & Thurlow of Boston.

#### VI -- ATLANTIC COAST COMPANY

Crowell & Thurlow continued to build up their schooner fleet, and also built a line of steamers. In World War I they went into the shipbuilding business, acquiring several yards Down East for building wooden schooners. One of these yards was at Thomaston, where the Atlantic Coast Company, Crowell & Thurlow's shipbuilding subsidiary, managed by Will Washburn and with Ira Vinal as master carpenter, built the following schooners for Crowell & Thurlow's management:

1917 4m. Sch	JESSIE G. NOYES	1376
1918 4m. Sch	AUGUSTA G. HILTON	1652
1918 4m. Sch	IDA S. DOW	1411
1919 4m. Sch	M. VIVIAN PIERCE	1511
1919 4m. Sch	M. H. HARRIMAN	1450
1920 4m. Sch	ATLANTIC COAST	1643
1920 4m. Sch	ELIZABETH FREEMAN	1635

The registered owner of these vessels was changed from the Atlantic Coast Co. to the New England Maritime Co. in 1925, but Crowell & Thurlow continued as managers. JESSIE NOYES was lost in 1927; as was E. FREEMAN, and ATLANTIC COAST in 1926. W. H. HARRIMAN went out to the West Coast in 1928 and ended in Los Angeles Harbor in 1940. AUGUSTA HILTON was lost as a Brava packet in 1933; IDA DOW was hulked at Newport News, and M. V. PIERCE, as EDWARD L. SWAN, became a breakwater at Astoria, Long I.

#### THE SHIPBUILDERS OF COOS BAY

##### III. HANS R. REED

It is difficult to trace the activities of a shipbuilder who was inclined to move about in his business operations, compared with the more usual cases where a man or a firm settles down in one locality and becomes identified with the shipbuilding industry of that port. West Coast shipbuilders, however, tended to be a restless lot, and none more so than Hans Reed. Thanks, however, to some autobiographical notes that he contributed to the "Overland Monthly" in 1895, together with painstaking work by Victor West of North Bend, Oregon, which has been made available to us, we can present a fairly detailed picture of Reed's career.

He was born in Norway in 1840 and was educated in the shipwright's trade. Having passed his examinations he shipped out for San Francisco, where he landed in April 1860. He at once found work in the shipyard of a fellow Norseman, John G. North, where he worked on the BROTHER JONATHAN, REFORM, YOSEMITE, CAPITOL, GEORGE LEVIE, and EUPHROSIA -- river and coastwise passenger steamers that were built or rebuilt by North.

After seven years at this work, Reed moved to the Mare Island Navy Yard for a year or so, and then went with his brothers Olaf and Edward to Davenport Landing, on Monterey Bay near Santa Cruz, where they built the JENNIE THELIN.

Reed next went to Puget Sound, where at Port Madison he built the J.S. PHELPS, still in association with at least one of his brothers, and then went to Coos Bay where he got out the frame of a steamer, shipped it to San Francisco, and at a spot then part of Henry Owens' shipyard and now occupied by the Union plant of the Bethlehem Shipbuilding Company he put together the steamer EASTPORT for the Oregon Coal Co. Then he returned to Port Madison and built a steamer and a barkentine with his brother Olaf. His work up to 1875 can be summarized as follows:

1869 2m. Sch	JENNIE THELIN	145
1870 2m. Sch	M. S. PHELPS	101
1872 Str	EASTPORT	483
1873 Str	EMPIRE	732
1874 3m. Bkn	S. M. STETSON	707

In 1874 Hans Reed came to Marshfield as master builder for E. B. Dean & Co., in a yard originally set up in 1868 by John Hamilton Howlett and Captain James McGee for John Pershbaker, along with a sawmill. Mill and yard were acquired by Dean three



years or so later. Here at Marshfield, Reed built:

1875 3m.Sch LAURA MAY	246
1875 2m.Sch PANNONIA	206
1876 3m.Sch JENNIE STELLA	292
1877 3m.Sch CHARLES H. MERCHANT	283
1880 3m.Bkn GEORGE C. PERKINS	368
1881 3m.Sch DAKOTA	335
1881 3m.Sch JOHN G. NORTH	336
1882 3m.Bkn C. C. FUNK	539
1882 2m.Sch VIKING	146
1883 2m.Sch GLEN	127
1883 3m.Sch JENNIE WAND	171
1884 Stmr COOS BAY	544
1886 Stmr ANTELOPE	29

After building the ANTELOPE, Reed went back to Port Madison, where he built

1888 4m.Sch PURITAN	614.
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Then he returned to Oregon, this time to Bandon, on the Coquille River about 15 miles south of Coos Bay. Here he built:

1889 2m.Sch SILVER WAVE	28
1889 St.Tug TRIUMPH	55
1890 St.Whl.DISPATCH	158
1890 St.Whl.ALERT	96
1891 Stmr. HOMER	501

Next he built a schooner on Coos Bay, at Pershbaker's Mill:

1892 2m.Sch MASCOT	75
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Then he went back to the Coquille, this time to Prosper, which is  $4\frac{1}{2}$  miles above Bandon, and built

1893 2m.Sch WINCHESTER	118.
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During the next five years of hard times, we find no new construction credited to Hans Reed. Then he appears at Fort Bragg, Northern California, building a steam schooner:

1898 St.Sch SEQUOIA	519.
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In 1900 he was back on Coos Bay again, building at a yard owned by J. Ross on Isthmus Slough at a place called Pleasant Point. It was too far from the mill, and getting material up to it was expensive. The SANTA ANA, and the steamer MAGGIE ROSS of 1888 were the only vessels ever built there.

1900 St.Sch SANTA ANA	1059
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Reed next moved to a spot across the bay from Marshfield, known as Bay City. Here he built

1901 St.Sch ARCTIC	392
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and started another steam schooner, but he was unsuccessful in getting her financed, so abandoned her on the ways, and she was never completed. So ended, as far as we now know, the shipbuilding career of Hans R. Reed.

According to some registers, however, the SANTA ANA was built by H.R. Reed and

Son, and later in 1900 one Thomas C. Reed commenced shipbuilding operations at Ballard, Washington, which is where the locks to the Lake Union Ship Canal in Seattle are now located. Although we have no evidence in support of our theory, it is logical to assume that Tom Reed was the son of Hans Reed, and carried on in the tradition of his father. He built:

1900 4m.Sch STINSON	693
1901 Stmr TILLICUM	116
1902 4m.Sch WM. NOTTINGHAM	1204
1903 4m.Sch WILLIS A. HOLDEN	1188
1902 4m.Sch WILBERT L. SMITH	848
1903 4m.Sch ALEX T. BROWN	788
1904 4m.Sch J. W. CLISE	845
1905 St.Whl. COLUMBIA	341

The five later four-masters were built under the style of the Globe Construction Company for the Globe Navigation Company, an organization of investors mainly from Buffalo and other Lake ports who were interested in taking part in the then-booming coasting lumber trade.

Olaf Reed, Hans's brother, was born in Norway in 1827, and first came to Oregon in 1869 as master of the JENNIE THELIN. He later was associated with Hans in building on Puget Sound, as already stated. In 1880 he built (or had built) the 20-ton screw steamer CERES at Norway, on Coos Bay, where he and Odin Nelson were partners in a general store; and for many years he navigated the waters of the Bay, hauling merchandise in the CERES. In 1892 he was for a month or so master of the stern-wheeler DISPATCH.

The schooner JENNIE THELIN had the distinction of being the only sailing vessel of any importance built south of San Francisco between the time of the Mexican War and World War I (1845-1919). The steamer EMPIRE of 1873 was a coasting collier; she is said to have become a South American gunboat, around 1907. The COOS BAY and HOMER were also colliers; the latter was afloat as a barge in Los Angeles harbor in 1940, and was sold to Costa Rican owners in 1943.

The MASCOT and WINCHESTER were Bering Sea sealers; the MASCOT was lost with all hands on the Japanese coast in 1894, while the WINCHESTER was transferred to foreign registry in 1903.

The SANTA ANA, Reed's largest product, was built for A. T. Beadle of San Francisco, but was bought in a year or so by Charles Nelson, who sold her in 1903 to the Pacific Packing & Navigation Co. In 1907 her owners became the Alaska Steamship Co. of Seattle, who ran her until 1922. After several more changes of owners, she was burned in 1939.



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- ALBION, Robert G., "Maritime and naval history; an annotated bibliography." Dittoed; iii & 60 leaves; Harvard University 1951. Primarily for students in Professor Albion's courses.
- ATKIN, John, "Evolution of hull forms," Motor Boating, pp.46-49, 120, April 1951. Ill. Canoes, balsas, etc.
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- BOOTH, J.H. Lawson, "A history of the Southport lifeboats; a record of gallantry and endurance on the Southport shore." 47 pp; ill. The Museum, Botanic Gardens, Churchtown, 1949. Price 1s.
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- CHAPELLE, H.I., "Early American yacht design," Yachting, pp.81-83, 164, 168-172, Jan. 1951. Ill; plans by Steers and Winde.
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- LA TOUR, Cy, "J.W. WESTCOTT, postman for the Great Lakes," Nat. Geog., v.98, pp.813-824, 1950; ill. Detroit River mail boat.
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- PEMBERTON, Frank, "Model maker Brownell," Providence Sunday Journal Magaz., pp.1-8, 26 Nov. 1950; ill. Alfred S. Brownell, some time publisher of "Rhode Island Mariner."
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- TRUXTON-DECATUR NAVAL MUSEUM, "Sea power and early American history; an exhibition February-May 1951," 14 pp., Washington D.C. Catalog of their 4th exhibit
- TVING, R., "Grønlands besejling," Grønlands Bogen, v.2, pp.121-146; ill. J.H. Schultz Forlag, København 1950. History of Greenland trade.
- VILLIERS, Alan, "End of the voyage; homeward bound from Greenland," Jornal do Pescador, pp.34-39; ill; Feb. 1951.
- WINSLOW, Frank A., "From memory's realm," Rockland Courier-Gazette, p.2, ill; 6 Jan. 1951. Launching of 6m. sch. GEORGE W. WELLS, 14 Aug. 1900.



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- TOMLINSON, Harry J., "Wooden ships and staunch sails," Grace Log, pp.8-10, 34, Sept/Oct 1950; ill. W.R.GRACE, M.P. GRACE, and MANUEL ILAGUNO.
- TRUXTON-DECATUR NAVAL MUSEUM, "Sea power and early American history; an exhibition February-May 1951," 14 pp., Washington D.C. Catalog of their 4th exhibit
- TVING, R., "Grønlands besejling." Grønlands Bogen, v.2, pp.121-146; ill. J.H.Schultz Forlag, København 1950. History of Greenland trade.
- VILLIERS, Alan, "End of the voyage; homeward bound from Greenland," Jornal do Pescador, pp.34-39; ill; Feb.1951.
- WINSLOW, Frank A., "From memory's realm," Rockland Courier-Gazette, p.2, ill; 6 Jan.1951. Launching of 6m.sch.GEORGE W. WELLS, 14 Aug.1900.



## BOOK REVIEWS

HEYERDAHL, Thor, "KON-TIKI: across the Pacific by raft," 304 pp; ill; index. Chicago, Rand, McNally & Co., 1950; \$4.00. index. London, Geo.G.Harrap & Co., 1948; 3d imp.1950. Price 15s.

Heyerdahl, four other Norwegians, and a Swede built a balsa raft after the style of those used by the ancient Peruvians, launched it off Callao, Peru, on 28 April 1947, and ended up with it on a reef in the Tuamotus on 7 August. The object of the venture was to obtain support for a theory of Heyerdahl's that much Polynesian culture was transferred in this way from the South American mainland.

In our opinion, this voyage proves nothing of the sort. It proved again, if more proof is needed, that Norwegians will undertake to sail anything that floats and bring it anywhere. Two Norwegian-born Sandy Hook clam-diggers named Harbro and Samuelson crossed the Atlantic from New York to Havre in an 18-foot rowboat called the FOX in June, July, and August of 1896, but does this prove that France was settled from North America? Even though in historic times an occasional dying Eskimo has reached the Scottish coast in his kayak?

Both the FOX voyage and the KON-TIKI voyage had this in common, that the kayak and balsa voyages could not have had, the participants knew where they were going and approximately how long it would take to get there.

For ancient Peruvians to shove off in rafts into the South Equatorial Current to reach Pacific islands presupposes a knowledge of the existence of those islands, a knowledge stemming from men who had first navigated from the islands to the continent. These men could only have been the Polynesians, and the boats they used would have been their outrigger canoes, in which they reached Hawaii, New Zealand, and even the Antarctic.

That there are cultural links between the Pacific Islands and South America seems to be beyond question, but it was the seafaring Polynesians who must have been responsible for it, and sailing canoes, not balsa rafts, that carried it. The Bering Strait land bridge cannot explain cultural features common to Asia and tropical America, as the gaps in North America are too great; but balsa rafts will not explain them either.

TWO BOOKS ON THE ESSEX COAST  
BENHAM, Hervey, "The last stronghold of sail; the story of the Essex sailing-smacks, coasters and barges," 202 pp; ill;

index. London, Geo.G.Harrap & Co., 1948; 3d imp.1950. Price 15s. BENHAM, Hervey, "Down tops'1; the story of the East Coast sailing barges," 192 pp, ill; index. London, Harrap, 1951. 12s6d.

The stretch of water between the Thames on the southwest and Harwich on the north has many points of similarity with San Francisco Bay or the Chesapeake. All three boast important but declining shell-fisheries, are wintering places for wild-fowl, have a concentration of heavy industry with a surrounding agricultural area, and have developed local types of sailing vessel. What the scow schooner was to San Francisco and the ram to the Chesapeake, the barge was to the Thames Estuary, only more so.

In "Last Stronghold", Benham concentrates on the Colne and Blackwater estuaries, and discusses all their maritime aspects, including a chapter on wildfowling by J. Wentworth Day; in "Down Tops'1" he confines his treatment to the barge types, with additional material by two other barge specialists, Roger Finch and Philip Kershaw, and covers a wider geographical area, from London all the way to the Tyne and Humber.

Benham's style crowds the narrative with dozens of anecdotes and examples, without often pausing to draw broad generalizations from the wealth of detail. A series of drawings by Roger Finch on the front endpaper of "Down Tops'1", showing the evolution of barge types, and a glossary of terms help make up for the difficulty of picking specific facts out of the text.

BENNETT, A.S., "Tide time," 165 pp; ill. London, George Allen & Unwin Ltd., 1949. Price 16s.

In part, this is another book about barges, as from 1933 to 1939 the author sailed JUNE, built in 1869, as a yacht. On the outbreak of war, he shipped as mate in powder barges, and then went into the RNVR, in drifters and motor launches. Four chapters cover his war experiences, and the rest is post-war housing problems, barge sailing, and the like. There is one excellent chapter concerned with the business of fixing a ship on the Baltic Exchange, where the author earns his living.

Some of the chapters have appeared as articles in the yachting press, and the book tends to be a little disjointed in consequence, but there is still plenty of good reading in it. There are 32 plates from excellent photographs, many showing details of barge rigging and fittings.



ANSON, Peter F., "Scots fisherfolk," with illustrations by the author, 166 pp; index. Published for the Saltire Society by the Banffshire Journal Ltd., 1950. Price 7/6.

The sea fisheries of Scotland have undergone an alarming decline since World War I. In this volume, Peter Anson, who is primarily an artist but also a keen observer of fishing methods, brings up to date a topic he first wrote about in 1930 in "Fishing boats and fisher folk on the east coast of Scotland."

Surveying both the historical background and the present state of the Scottish fishing industry, Anson goes deeply into the folkways of the fishermen, devoting a whole chapter to religion and superstitions. The text is liberally illustrated with his excellent pen and wash drawings, and the book is rounded off with relevant statistical tables and a bibliography. There is a chapter describing fishing vessel types, with additional material in an appendix.

PURVES, Alec A., "Flags for shipmodellers and marine artists," 84 pp, 104 figs. London, Percival Marshall & Co.Ltd., 1950.

This is a handy, authoritative little volume, well worth its modest price of three-and-sixpence. Anyone wishing to add a spot or two of color to a painting or model, particularly of British vessels of the past, would do well to give it some study. Spain, Portugal, France, Netherlands, Norway, Sweden, Denmark, and the U.S.A., are also briefly covered, the treatment of Norway, in particular, being the most comprehensive we have ever encountered in English.

Early signal codes, from 1790 to the present, are also described. There is a good bibliography.

LEARMONT, James S., "Master in sail," 222 pp. London, Percival Marshall, 1950. Price 12 shillings sixpence.

Captain Learmont first went to sea in 1887 at 12 with his father in the Solway Firth schooner EARL OF STAIR. In 1890 he shipped before the mast in Rae's bark CRAIGNAIR for a voyage to Chile; then followed a few months in Leyland's steamers VIRGINIAN and COLUMBIAN; and then he joined Rae's new CHIPPERKYLE as A.B. Next he was in the big bark STRATHDON, passed his examination, went second mate of the Bluenose bark WILLIAM LAW, and was then chief mate of the ship COUNTY OF CLARE. Next he

joined Rae's BRENHILDA as mate, was in steam from 1899 to 1902, and then took command of BRENHILDA. From her he went to their BRENDA, which he lost by fire at Iquique in 1906.

Captain John Rae thereupon sent him to St.Nazaire to survey the four-masted bark PASS OF BRANDER, which they bought and renamed, and Capt. Learmont sailed her until 1910, when he retired from deep water to become a Trinity House pilot.

Captain Learmont was a rather unusual type of British shipmaster. Although he served before the mast rather than as an apprentice, he treated his own apprentices like a father, and saw to it that their professional training was not neglected, as it was in most British ships of this period. In his relationship with the Raes, also, he seems to have been a part-owner, dealing directly with the managing owner, rather than an employee dealing with a marine superintendent. In this respect he resembled his contemporary American skippers.

In his book, Captain Learmont has amplified material that he gave in articles in "Sea Breezes" in August 1946, March and July 1948, and January and March 1950, and the result is a valuable and almost unique picture of the operation of British sailing ships from the master's point of view in the declining days of sail. Particularly interesting is the account of the dismasting of the BENGAIERN (ex PASS OF BRANDER) and her subsequent rerigging at Sydney with the ship's force doing most of the work.

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#### SAILING SHIP NEWS

CITY OF NEW YORK, Hond.aux.3m.sch. Was in Philadelphia in Dec.with cargo Xmas trees, and loaded coal for Nova Scotia.

CUTTY SARK, Br.ship. 28 Feb.docked at Millwall DD Co.to be surveyed for possible repairs.

GRACIE S., aux.2m.sch. Will enter Honolulu race this year.

MARION CHILCOTT, barge (pp.59-60). 1950 was an oil storage hulk at Port of Spain, Trinidad.

PAMIR, Finn.4m.bk. Left Penarth 13 March; arr.Antwerp 18th; in tow GANGES.

PASSAT, Finn.4m.bk. Left Penarth 5 March and Cardiff 6th; arr.Antwerp 10th; in tow ZWART ZEE. She and PAMIR scrapped.

VIKING, Finn.4m.bk. Jan.1951 reported sold for \$70,000 for preservation at Gothenburg as navigation school hostel and marine museum annex.



## FLAG NOTES

## NEWS ITEMS

"National Geographic" for February (v. 99, pp.213-238) has an article by Elizabeth W.King, "Flags of the United Nations", which brings most of the post-War changes up to date.

As noted in March LOG CHIPS (p.54), Western Germany now uses the black, red, and gold of the Weimar and 1848 republics. Eastern Germany now has the same colors, but arranged gold, black, red. Since 15 Dec.1947, the Saar has flown a flag arranged like that of Sweden, with a white cross on a blue field in the hoist and a red field in the fly; it is close to that of the Dominican Republic.

The Saar flag, with the others of the members of the Council of Europe, is shown in "Un drapeau pour l'Europe," by Paul M. G.Levy and Paul Martin in *Extrait de Saisons d'Alsace* No.3, 8 pp., 1950. M.Levy also has an article "La bataille des drapeaux" in *Notre Europe*, no.2, Jan-Feb. 1951. Both of these papers discuss various proposals to design a flag to symbolize United Europe. A green "E", with the upper and lower arms extending the length of the flag, and a white field between them, has been used; but these authors propose a more esthetic design: a green cross on a white field, with a white shield bearing the red bend of Strasbourg in its center.

The Italian peace treaty of September 1947 established as the flag of Trieste a red field with a white halberd, traditional emblem of Trieste. Apparently, though, the Italian flag is used as the national flag at sea.

On 9 March the new Libyan flag was raised at Tripoli as the British administration turned over the government to Tripolitan authorities. The other two provinces of Libya, Fezzan and Cyrenaica, will join it by 1 Jan.1952. The Libyan flag is divided horizontally, red, black, and green, with the black stripe twice the width of the others. On the black stripe are a white star and crescent.

We have previously described the new flags of Indonesia (LC v.1,p.105) and of Ceylon (v.2,p.27). Another new Asiatic flag is that of Viet Nam (French Indo-China), three narrow horizontal red bars centrally on a yellow field. That of the Ryukyus we gave on page 7 of volume 2.

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The same issue of "National Geographic" mentioned above has 38 color reproductions from "American Processional," LC v.2, p.5.

## CODFISHER NEWS FROM LISBON

This year's Banks and Greenland fleet will be 32 sailers and 12 small motorships, and about 20 big trawlers. The 32 sailers are 31 schooners and the last barkentine, GAZELA PRIMEIRO. Last year one schooner--the Danish-built ANA PRIMEIRO, of Figueira da Foz--was burned out and lost, and one motorship, the COVA DA IRIA, sunk. The ANA I is replaced by the old schooner JULIA I, which was laid up last year, but the motorship is not being replaced.

There is a new trawler called DAVID MELGUEIRO, built in Holland, with a capacity of 30,000 quintals of salt cod.

This year's fleet is baiting from Norway and Portugal, and therefore will not go into St.John's until it is time to bait for Greenland.

--ALAN VILLIERS

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## SAN FRANCISCO MARITIME MUSEUM TO OPEN

Culminating over a year of hard work on the part of Karl Kortum and his staff, San Francisco's new Maritime Museum will open on National Maritime Day, 27 May. We will be there in spirit, and hope to visit in the flesh before many more months.

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## NAVY RELICS IN SORRY SHAPE

As reported in November LOG CHIPS, the CONSTITUTION is being repaired at Boston with Virginia red oak, treated with preservative, and thus we can hope to have her around for a few more years. Alongside her, the CONSTELLATION continues to deteriorate and may be expected to go the way of the AMERICA in a few years.

At Norfolk, Farragut's old HARTFORD is in similar shape. President Roosevelt had taken a personal interest in her when she lay at the Washington Navy Yard, and in 1938 a WPA project spent \$100,000 repairing her. In 1944, however, she was towed down to Norfolk to become a bunkhouse for yard workmen, and she has gone down hill ever since.

Harold Huycke sends a photo of the Spanish War veteran OREGON, lying in Apra harbor, Guam, in February 1951. Once being preserved as a relic by the State of Oregon, she was donated to a scrap drive during 2d World War, but instead of being broken up she had her upper works cut off, and was towed out to the Pacific theater with a cargo of explosives. It was rumored she had been scuttled as a breakwater, but she seems to be still afloat and riding high.

One more possible Navy relic was in the news recently, with a Navy press release about a piece of wreckage identified as the



MONITOR: the original monitor that fought the MERRIMAC. It lies in the proper position, 20 miles SE of Cape Hatteras, in 20 fathoms, but the Navy announced it had no plans to raise the wreckage, or even to send down divers to confirm the identification.

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#### POWER FISHING IN BRISTOL BAY

Long a sail stronghold, by virtue of Fish & Wildlife Service regulations restricting power boats from gill-netting salmon, Bristol Bay this year will be opened to power gill-netters up to 32 ft. length. Subsequent to the new ruling, issued 1 Feb. 1951, there has been a rush to convert the sailing types to power.

The type of craft formerly used was a two-man double ender. It originated with a Greek fisherman on the Sacramento in California, but soon spread to Oregon waters, and hence became known as the "Columbia River Salmon Boat". The powered conversions are cutting off the stern, in order to come under the allowable length, and the result bears little resemblance to the original type.

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#### NEW PUBLICATION ON SHIPMODELING

"The Compleat Modellist," a 32-page mimeographed quarterly, appeared in December 1950. It is published by the Association of Ship Model Societies in London, and circulation is handled by W.F. Purser, Esq., 105 Glengall Road, London SE 15. The subscription is 3s, which makes it a real bargain.

Number One was sold out before we learned of it, but Number Two has an article on Early Ironclads and hull and spar dimensions of the 16-gun brig SNAKE of 1832, among many other matters.

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#### NOTES ON THREE AND FOUR MASTERS

FANNY ARTHUR (1891), STILLMAN F. KELLY (1905), WILLIE H. CHILD (1888), and GEORGE S. SMITH (1915) were all three-masters, although they are cataloged in your four-master list. I knew these schooners very well.

There were two AGNES MANNINGS, both named for the same person. The second (ex GEORGE TAULANE) had iron rods for standing rigging instead of wire, and was the only four-master so rigged.

The two C.S. GLIDDENS were built by Dunn & Elliot of Thomaston and named for the ship broker in Boston. Captain James Fales was master of the first, a nifty

and well balanced schooner. Bound to Tampa, Florida, and arriving at the bar during the night, he anchored. Getting under way in the morning with a pilot aboard, she struck on the Bar and was a total loss. Capt. Fales got some wreckers, stripped the vessel, and shipped by schooner all the masts, booms, gaffs, anchors, chains, and everything movable back to Thomaston.

They built the second C.S. GLIDDEN a little larger than the first but with the same sail plan. Fales was master of both during their entire career. He lost the second on Lookout Shoals bound South with a cargo of railroad iron when she was two years old.

The four-master AMELIA ZETMAN was the only four-master that never delivered a pound of cargo. On her maiden voyage she left Norfolk for Santo Domingo with a cargo of coal and has never been heard from since.

--Capt. Harold G. Foss

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#### PASSING OF A SCHOONER MASTER

Captain George H. Hopkins, 73, died on 19 February at the Baltimore Marine Hospital. A native of Bethel, Del., he went to sea at 14, in such deepwater square riggers as JAMES DRUMMOND, ST. DAVID, RHINE, OCHERTYRE, ANDROMEDA, and DIRIGO. He commanded many American coasting schooners, with a brief fling at steam in World War I.

Among his commands were the four-masters G.A. KOHLER, DORIS HAMLIN, and HERBERT L. RANDING, and he had the five-master EDNA HOYT on her last voyage. Then he went in barges, leaving the WOLLASTON last year when he was taken ill.

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#### FLETTNER ROTORSHIPS

Remember the rotorship? "Science & Invention" and "Popular Mechanics" were full of it 25 years ago, when it was hailed as the most economical means of carrying goods by water, and was going to revolutionize the world's merchant marines, particularly Germany's.

The German professor Magnus had shown back in the 1850's that a cylinder rotated in an air current acquired a thrust perpendicular to its axis. In the early 1920's another German inventor, Anton Flettner, proposed to use this effect instead of sails as a means of vessel propulsion. After some experiments with yachts, he floated the Flettner Rotorschiffahrt GmbH of Hamburg, bought the auxiliary three-masted schooner BUCKAU, unriggered her, and fitted her with two rotors. (Contd. p. 69)



## NETHERLANDS-BUILT COASTERS, continued from p.19

Continued herewith from last September is a list of Dutch-built schooners, with a few additions. All are auxiliary steel three-masted schooners, unless indicated.

## 1917

AYO	359	G. & H. Bodewes, Martenshoek	Danish.
BIO	356	G. & H. Bodewes, Martenshoek	Danish
HERMINA	351	G. & H. Bodewes, Martenshoek	Netherlands

## 1918

ALBERTA	444	Woertelboer & Co., Westerbroek.	Netherlands
BOSCO	386	Gebr. Muller, Foxhol	Netherlands

## 1919

CLARA	385	Gehr. Muller, Foxhol	Netherlands
EMILY	416	D. Boot, Aphen a/d Rijn	DORIN, British
NAVIS IV	382	J. Smit & Zn., Foxhol.	Netherlands; ZWOLLERSKARSPERL; SLOTTERMEER; RAYMONDE NAVAL, German; SISSIE, German; VIRTUS, Italian.
NAVIS V	395	Gebr. Muller, Foxhol	Netherlands; NEPTUNUS, Nether- lands, Italian.
SIVE	397	Gebr. Bodewes, Martenshoek.	Estonian; VITTORIA, Italian.
SVAM II	358	Wilmerk & Co., Gideon	Italian.
VELOX	351	J. J. de Bodewes, Pannerden	Swedish; INA, Swedish; ANNA ELISABETH, Netherlands.

## 1920

GIOVANNA VERDERAME	472	Gebr. Bodewes, Martenshoek.	Italian; DUE AMICI; EMILIA GUIDI.
LUISA VERDERAME	607	Wortelboer & Co., Westerbroek.	Italian; CATERINA, Italian, (Aux. 4m. Sch) British (Bahaman).
MARTHA (Aux. 4m. Sch)	480	J. Th. Wilmerk, Groningen	German.

## 1921

PRZEMYSŁ	435	Wortelboer & Co., Delfzijl	GEORGENE, German, American, British.
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## 1925

OCEAAN	453	G. & H. Bodewes, Martenshoek.	Netherlands; NOTRE DAME DU CHATELET, French.
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## 1939

ARGUS (Aux. 4m. Sch)	696	De Haan & Oerlemans, Heusden.	Portuguese.
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(continued from p.68)

B. Pivoted on stout masts where the fore and mizzen had been, were cylinders of 1/25" sheet steel, about 9 ft. diameter and 51 ft. high, fitted to be turned at 125 rpm and operated without the rotors. She survived the War, was handed over as reparations, and in 1947 was bought by Ove Skou of Copenhagen and renamed ELSE SKOU, under which name she is still trading.

The BUCKAU's mainmast, stripped of sails, was left in its original position. This work was done in the spring of 1925, and the BUCKAU was followed in 1926 by the BARBARA, a 2000-ton vessel with three rotors.

She was managed for the Deutsches Reich Marine-Verwaltung by R.M. Sloman of Hamburg until 1933, when she was sold to the Bug-Reed. & Bergungs A/G, renamed BIRKENAU, and later crossed the Atlantic, where she was bought by J.F. Condon Jr. of New York and put under Panaman registry. About 1929 she was lost off Hatteras.

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The BUCKAU, 497 tons, had been built at Kiel by Krupp in 1920, and had an auxiliary diesel originally intended for a sub-marine. The BARBARA, built at Bremen by the Weser yard, had two big diesels hydraulically coupled to a single shaft, and actually was a full-powered motorship.

## IRISH PENNANTS

GLENSHEE (p.60) was lost by going ashore near Haaholmen on 26 Dec. 1922, bound from Goole to Arendal.

--Andy Nesdall  
Carl Christensen sends us a photo of CROWLEY (p.7) showing her as a baldheaded five-master with no yards.



SAILING VESSELS BUILT IN THE UNITED KINGDOM, 1881  
(All IRON unless noted otherwise)

W. Doxford & Sons, Sunderland  
COUNTY OF PEMBROKE Bark 1098 W. Thomas & Co., Liverpool. Wrecked 14 Nov. 1903.

Osbourne, Graham & Co., Sunderland  
AKAROA Bark 1334 Shaw, Savill & Albion Lim., Sthmptn. Submarined 1917.  
BALAKLAVA Bark 1347 Davison, Bisset & Co., Liverpool.  
NONNO ANGELO 1900 (Italian) Broken up 1915.

R. Thompson & Son, Sunderland  
EMBLETON Bark 1233 P. Iredale & Son, Liverpool. Lost in collision 1900.

Richardson, Duck & Co., Stockton  
ANDORA Ship 1720 E.F. & W. Roberts, Liverpool. Broken up Germany 1911.  
COMBERMERE Ship 1727 C.W. Kellock & Co., Liverpl. Submarined Jan. 1917.  
KELAT Ship 1894 E. Bates & Son, Liverpool.  
HØVDING 1903 Leif Gundersen, Porsgrund. Hulked Melbourne 1915.

Oswald, Mordaunt & Co., Southampton.  
ANDROSA Ship 1999 G.W. Roberts, Liverpool. Abnd. afire March 1907.  
DARJILING Ship 2002 E. Bates & Son, Liverpool. Missing 1883.  
DUNSTAFFNAGE Ship 1945 J. Houston & Co., Liverpool. Lost w. all hands 1883.  
VICTORIA REGINA Ship 2000 J. Coupland, Liverpool.  
MARIA TERESA 1903 (Italian)

J. Ransom, Southampton.  
MAY HULSE Wood Bark 491 J.R. Leckie, Glasgow

J.W. & A. Upham, Brixham  
SILVER LINING Wood Bktn 369 Builders Stranded 1884.

Harvey & Co., Hayle  
TYNRON Bktn 288 T.C. Guthrie, Glasgow

T. MacMaster & Co., Pembroke Dock.  
MARY MACMASTER Wood Bark 614 Builders, Milford.  
ELISA (Portuguese)

R. & J. Evans & Co., Liverpool  
IRBY Ship 1523 Ismay, Imrie & Co., Lvrpl. Mined North Sea Jan. '19.

W.H. Potter & Sons, Liverpool  
ARISTOMENE Ship 1795 H. Fernie & Sons, Liverpool.  
OLONA 1908 S.A. Riccardo Gualino & Piaggio, Genoa. Broken up 1923.  
COLUMBA Ship 1794 Sandbach, Tinne & Co., Lvrpl. Wrecked Sept. 1896.  
COPLY Ship 1794 Ismay, Imrie & Co., Lvrpl. Broken up Denmark 1911.  
JESSOMENE Ship 1980 H. Fernie & Sons, Liverpool.  
HELDOS 1907 L. Lydersen, Tvedestrand  
FIDELIO 1918 A/S Fido (M. Hansen), Kristiansand. Broken up Stavanger '23.  
ORCHOMENE Ship 1586 H. Fernie & Sons, Liverpool. Lost 10 Jan. 1892.  
THALATTA Ship 1793 McDiarmid, Greenshields & Co., Lvrpl. Lost 1912.  
WALDEN ABBEY Ship 1799 J. Poole & Co., Liverpool.  
SVANEN 1916 U. Müller, Copenhagen. Submarined 23 Apr. 1917.

Whitehaven Shipbuilding Co., Whitehaven.  
WASDALE Ship 1879 J.D. Newton, Liverpool. Submarined 5 Feb. 1917.

Ritson & Co., Maryport  
SOUTHERFIELD Wood Bark 731 Builders. Burned Oct. 1888.

Troon Shipbuilding Co., Troon.  
DUNURE Wood Bktn. 198 J. Steer, St. Johns, Newfoundland. Fndrd. March 1918.



		Barr & Shearer, Ardrossan.		
CLUTHA	Wood Sm.Sch.	261 W.P.Munn;	St.Johns, Newfoundland.	Sold to Barbados.
		R. Steele & Co., Greenock.		
ROUTENBURN	4m.Bark	2097	R.Shankland & Co., Greenock	
SVITHIOD	1906		Red.A/B Navigator (J.E.Olson), Gothenburg	
BEATRICE	1922		Red.A/B Polux (A.Pedersen), Gothenburg.	Broken up 1932.
		Russell & Co., Port Glasgow and Greenock.		Greenock yard.
ALGOA BAY	Bark	1165	Hatfield, Cameron & Co., Glasgow.	Abnd.afire 1917.
CLAN MACFARLANE	Ship	1583	Thos.Dunlop & Sons, Glasgow.	Hulked Noumea 1913.
CLYNDER	Bark	1145	Thom & Cameron, Glasgow.	Lost Dec.1890.
JAVA	Bark	913	P.Denniston, Glasgow.	
VIVO			H.E.Wolden, Montevideo.	Wrecked July 1921, Brazil.
KHOKAND	Bark	1153	W. Crawford, Greenock.	Missing 1882.
ROTHOMAHANA	Ship	1658	J.R.de Wolf, Liverpool.	Lost 19 Aug.1884.
				Port Glasgow yards.
CLOSEBURN	Bark	924	T.C.Guthrie, Glasgow.	
VIRGO	1921		N.Fremberg, Sölvesborg, Sweden.	Wrecked 5 Dec.1928, Åland.
DRUMBURTON	4m.Ship	1891	Gillison & Chadwick, Lvrpl.	Lost Sept.1904, Calif.
DUNCRAG	Bark	924	J.Dunn & Sons, Glasgow.	Hulked Bermuda 1921.
KILMODAN	Ship	1624	Kerr, Newton & Co., Greenock.	Abnd.afire Aug.1881.
		R. Duncan & Co., Port Glasgow		
HERMES	Ship	1464	R.R.Paterson, Greenock.	Missing 1881.
POSEIDON	Ship	1778	C.S.Caird & Co., Greenock.	
PATRIA				
CAUPOLICAN	1921		Borquez y Cia., Valparaiso (Motorship).	
		H. Murray & Co., Port Glasgow		
BEN DOURAN	4m.Ship	1950	Watson Bros., Glasgow.	Missing 1892.
		J. Reid & Co., Port Glasgow		
BOLIVIA	Steel Bark	904	Nicholson & McGill, Liverpool.	
BAUNEN	1908		Haakon Christensen, Laurvig, Norway.	
TUXPAN (barge)				Ended as Cuban molasses barge.
CARLETON	Steel Bark	1358	J.Kerr & Co., Greenock	
MARIO	1897		G.Lauro, Castellamare.	Missing 1918, S.Pacific.
VALDIVIA	Steel Bark	905	Nicholson & McGill, Lvrpl.	
GUADELOUPE	1924		Pure Rum Co., Havre.	Scrapped Havre 1925.
		R. Chambers Jun., Dumbarton.		
BERWICK LAW	Bark	1335	D.Law, Glasgow.	Missing 1886.
		Barclay, Curle & Co., Glasgow.		
LOCH MOIDART	4m.Ship	2081	General Shipp.Co., Glasgow.	Wrecked Jan.1890.
LOCH TORRIDON	4m.Ship	2081	General Shipp.Co., Glasgow.	Foundered Jan.1915.
SIREN	Ship	1555	A. & J.H.Carmichael & Co., Greenock.	Sunk 1896.
		Dobie & Co., Glasgow.		
ILLAWARRA	Ship	1963	Devitt & Moore, London.	Foundered March 1912.
		Napier, Shanks & Bell, Glasgow		
LARGO LAW	Ship	1681	David Law, Glasgow.	Burned Callao Feb.1905.
		W.Hood & Co., Aberdeen		
ORONTES	Ship	1383	G.Thompson & Co., Aberdeen.	Sunk Oct.1903 in cllsn.
		A. Hall & Co., Aberdeen		
SCOTTISH WIZARD	Bark	1209	McIlwraith, McEacharn & Co., London.	
PASQUALE LAURO			F.Lauro, Castellamare.	Missing Atlantic 1917.



J. Roney, Arbroath  
THE MACBAIN Wood Bktn. 298 Robertson Brothers, Dundee.

A. Stephen & Son, Dundee

GLENFARG Bark 898 Dundee Shipowners Co.(W.O.Taylor & Co.), Dundee  
THEKLA 1906 Jens Samuelson & B.Olsen, Farsund. Broken up 1929.

THETIS Wood Stm.Bark 723 Builders  
Ramage & Ferguson, Leith

HIGHLAND CHIEF Bark 944 net. Crane, Colvil & Co., Glasgow. Lost 30 Dec.1881.

P.Rodgers, Carrickfergus

MARY ARMSTEAD Wood 3m.Sch. 119 J. Fisher & Sons, Barrow. Lost in collsn.June 1902.

MARY MILLER Wood 3m.Sch. 119 J. Fisher & Sons, Barrow. Made houseboat, 1949.

(With thanks to Captain H.Daniel of Montevideo and Jim Mills of San Diego for assistance in running down the 1881 ships.)

#### THE EARLIEST STEEL SAILING VESSELS

When Bessemer steel was first introduced, it was tried as a shipbuilding material. Some Civil War blockade runners were built of it, and other light steamer types, and also the following three sailing vessels:

Ship		tons	builders
FORMBY	1271	Jones, Quiggin & Co., Liverpool	
		1863	
		1864	
CLYTEMNESTRA	1250	Jones, Quiggin & Co., Liverpool	
ALTCAR	1283	Jones, Quiggin & Co., Liverpool	

Then there followed a period of years in which Bessemer steel was considered unsuitable as shipbuilding material. Finally open-hearth steel was developed, and in the '70's it began to be used for construction in the British and French navies. Then mail steamers were built of it, although its high price relative to wrought iron prevented its general use in merchant craft. Yards sometimes built small sailing vessels with material left over from a steamer contract. Gradually steel mill capacity was built up, the price differential decreased, and more vessels were produced:

Ship		tons	builders
BAY OF CADIZ	1700	J. & G. Thomson, Glasgow	
		1878	
KYLEMORE	1245	J. Reid & Co., Port Glasgow	
ALDEBARAN	1913	R. Williamson & Son, Workington	
		1880	
BOLIVIA	1245	J. Reid & Co., Port Glasgow	
CARLETON	1358	J. Reid & Co., Port Glasgow	
VALDIVIA	905	J. Reid & Co., Port Glasgow	
		1881	
KIRKMICHAEL	933	W. Doxford & Sons, Sunderland	
CLONCAIRD	1361	J. Reid & Co., Port Glasgow	
PINMORE	2431	J. Reid & Co., Port Glasgow	
SIERRA PARIMA	1584	J. Reid & Co., Port Glasgow	
GLENFYNE	957	A. Stephen & Sons, Dundee	
GLENOGLE	958	" " "	
HELENSLEA	1374	" " "	
GARFIELD	2347	Harland & Wolff, Belfast (Iron Floors & Beams)	
LORD DOWNSHIRE	2322	" " " (Iron Floors & Beams)	

Lists for later years can readily be picked out of the launching lists already published in LOG CHIPS. We count 10 vessels built wholly or partly of steel in 1883, 6 in 1884; 26 in 1885; 16 in 1886; 12 in 1887; and 32 in 1888.